

ORIGINAL

# OPEN MEETING



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## MEMORANDUM

Arizona Corporation Commission

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TO: THE COMMISSION

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FROM: Utilities Division

DOCKETED BY  
JSM

DATE: July 3, 2012

RE: GRAHAM COUNTY ELECTRIC COOPERATIVE, INC. - APPLICATION FOR APPROVAL OF ITS ELECTRIC ENERGY EFFICIENCY IMPLEMENTATION PLAN FOR 2012 AND 2013 (DOCKET NO. E-01749A-11-0235)

### INTRODUCTION

On June 6, 2011, Graham County Electric Cooperative, Inc. ("GCEC" or the "Company") filed an application with the Arizona Corporation Commission ("Commission") requesting approval of its Electric Energy Efficiency Implementation Plan for 2012 and 2013 ("2012-2013 EE Plan"). GCEC is submitting its 2012-2013 EE Plan in accordance with A.A.C. R14-2-2418. In addition to requesting approval of its proposed 2012-2013 EE Plan, GCEC has also requested a partial waiver of the percentage savings goals required in A.A.C. R14-2-2404.

GCEC is an Arizona nonprofit corporation that is certificated to provide electricity as a public service corporation in Graham County in the State of Arizona. GCEC serves approximately 9,916 customers – 78% are residential customers. Less than 0.2% of GCEC's customer base consists of large industrial customers. GCEC does not currently have a Demand Side Management ("DSM") portfolio but does have a DSM adjustor rate mechanism in place (Decision No. 70289). GCEC's 2012-2013 EE Plan contains all new programs, with the exception of the Residential Time Of Use ("TOU") rate schedule, which currently has no customers on it.

The Commission's Electric Energy Efficiency Standards ("EE Standards") became effective January 1, 2011. The EE Standards clarified that electric public service corporations had to file their initial energy efficiency plans by the end of January 2011 and electric distribution cooperatives had until June 1, 2011 to file their respective plans. In addition, A.A.C. R14-2-2418 requires that cooperatives obtain at least 75% of the savings goals specified in A.A.C. R14-2-2404 which means the savings goals in the Electric Energy Efficiency Rules for GCEC would be 2.25% in 2012 and 3.75% in 2013. In accordance with A.A.C. R14-2-2405(C), GCEC notified customers of its 2012-2013 EE Plan filing in the April 2012 billing cycle.

### IMPLEMENTATION PLAN

GCEC's 2012-2013 EE Plan consists of several new programs. Specifically, GCEC proposes a total of six residential programs and two support programs. The support programs included are offered to provide education and outreach to GCEC customers. The following programs have been included in GCEC's proposed 2012-2013 EE Plan:

- Refrigerator/Freezer Appliance Recycling Program
- Residential Compact Fluorescent Lamps (“CFLs”) Lighting Program
- Residential Home Energy Audit Program
- Residential Low Income Weatherization (“LIW”) Program
- Customer Energy Efficiency Education Program
- Residential TOU Rates

The Support Programs proposed by GCEC include: the Advertising Budget and Administration Budget.

### **REFRIGERATOR/FREEZER APPLIANCE RECYCLING PROGRAM**

GCEC’S proposed appliance recycling program is designed to decrease energy usage by incenting the residential customers to recycle secondary old refrigerators and freezers. These appliances will be recycled through a process that captures all hazardous materials and recycles as much material as possible (>95% will be recycled).

The marketing and advertising of this program will be completed primarily by GCEC, but the appliance pickup and recycling services as well as the tracking of the appliances recycled and the savings associated with such recycling will be managed by a third party implementation contractor. GCEC plans to pool its efforts with other utilities to allow GCEC to maximize promotion and minimize cost. GCEC will provide a \$30 rebate to its customers per unit recycled to incent participation in the program. GCEC plans to offer these recycling rebates until such time as the budget for the program is exhausted.

#### *ENERGY SAVINGS AND BUDGET*

The table below shows the demand and energy savings projected in 2012 and 2013 for the proposed Appliance Recycling Program.

	2012	2013
Number of Appliances Recycled	57	57
Peak Demand Savings per unit (kW)	0.09	0.09
Annual Energy Savings per unit (kWh)	811	811

The proposed budget for the Appliance Recycling Program is \$8,379 per year split between direct implementation costs, marketing costs, and incentive dollars. The proposed budget (excluding the Support Programs budget) for the Appliance Recycling Program represents approximately 10% of the total 2012-2013 EE Plan budget. The Support Programs budget would be allocated across all of the proposed new programs.

### **RESIDENTIAL COMPACT FLUORESCENT LAMPS LIGHTING PROGRAM**

GCEC’s proposed CFL lighting program is designed to promote the installation of high-efficiency CFLs in homes within the GCEC service territory. The program will provide discount pricing from a local retailer (specifically the local Ace Hardware). Customers will be referred to

the participating retailer to purchase qualifying CFLs, and the discount pricing will be passed on to GCEC's customers through a negotiated agreement with Ace Hardware.

This program will be marketed and advertised primarily by GCEC. But the overall administration of the program will incorporate working with the Ace Hardware store. Ace Hardware will sell the CFLs at a discounted price and will track the number of CFLs sold under the rebate program to seek reimbursement from GCEC for the agreed upon rebate amounts. Ace Hardware will provide GCEC with detailed reports of purchased CFLs and GCEC will, in turn, calculate the kWh saved as a result of those CFL purchases. GCEC plans to offer this program until such time as the budget for the program is exhausted.

#### *ENERGY SAVINGS AND BUDGET*

The table below shows the demand and energy savings projected in 2012 and 2013 for the proposed Residential CFL Lighting Program.

	2012	2013
Projected Lamp Sales	2192	2192
Peak Demand Savings per unit (kW)	0.0506	0.0506
Annual Energy Savings per unit (kWh)	55.66	55.66

The proposed budget for the Residential CFL Lighting Program is \$3,000 per year with all of the dollars going toward discounting the CFLs. The proposed budget (excluding the Support Programs budget) for the Residential CFL Lighting Program represents approximately 4% of the total 2012-2013 EE Plan budget. The Support Programs budget would be allocated across all of the proposed new programs.

#### **RESIDENTIAL CUSTOMER HOME ENERGY AUDIT PROGRAM**

GCEC's proposed Residential Customer Home Energy Audit Program is designed to provide customers with additional information relating to his/her own energy usage to enable the customer to make educated decisions relating to how he/she can conserve energy. Customers utilizing this program would schedule a visit at his/her home with a GCEC representative to at a minimum: conduct an analysis of the home's thermal envelope, survey the electric appliances, and review the living habits of all occupants. The GCEC representative would then provide appropriate recommendations based on the results of the audit and distribute energy efficiency-related materials for the customer to review.

A home energy audit is a comprehensive home examination designed to assess how much energy the home is using and to evaluate what measures can be taken to improve efficiency. The most common conditions found are leaks in the heating, ventilation and air conditioning (HVAC) duct system, penetrations which allow air exchange and connection between the attic and exterior of the home with the conditioned space; insulation failures; and unsealed windows and doors.

Professional auditors use a variety of techniques and equipment to determine the energy efficiency of a home. Thorough audits often use equipment such as blower doors, which

measure the extent of leaks in the building envelope, and duct blasters which test and document the air tightness of forced air duct systems.

It is important to note that a home energy audit, in and of itself, is not an energy-saving measure. Additional measures must be implemented to correct existing conditions within the home that are causing homeowners to waste energy and incur high electric bills.

As part of GCEC's 2012-2013 EE Plan, this Residential Home Energy Audit Program will be marketed and advertised primarily by GCEC; however, GCEC plans to use the expertise of a Building Performance Institute ("BPI") certified third party implementation contractor (specifically Pro Home Inspections in Safford, AZ) to perform the home energy audits. Once the audit has been completed, GCEC will pay the contractor for 75% of the Home Energy Audit costs (up to \$150 per GCEC customer). GCEC will continue offering this program until such time as the budget for the program is exhausted.

#### *ENERGY SAVINGS AND BUDGET*

The table below shows the energy savings projected for 2012 and 2013 for the proposed Residential Customer Home Energy Audit Program. All of the \$20,000 budgeted each year for this program will go toward paying for 75% of the Home Energy Audit costs up to \$150 per customer (for the Home Energy Audit this would represent \$150 of the total \$200 Home Energy Audit cost).

Budgeted Incentive \$ per home	\$150.00
Program Budget	\$20,000.00
# of Homes Supported by Budgeted Incentive	133
Estimated Participation Level	50%
# of Homes Estimated to be Inspected	67
% of Homes Implementing Energy Efficiency	10%
# of Homes Implementing Energy Efficiency	6.67
Savings Estimate Per Home	20%
Average Residential Usage Per Home (kWh)	801
Monthly Energy Savings Per Home (kWh)	160
Yearly Energy Savings Per Home (kWh)	1,922
Total Program Savings Per Year (kWh)	12,816

The proposed budget for the Residential Customer Home Energy Audit Program is \$20,000 per year. The proposed budget (excluding the Support Programs budget) for the Residential Customer Home Energy Audit Program represents approximately 23% of the total 2012-2013 EE Plan budget. The Support Programs budget would be allocated across all of the proposed new programs.

#### **RESIDENTIAL LOW INCOME WEATHERIZATION PROGRAM**

GCEC's proposed LIW Program is designed to improve energy efficiency in homes in the GCEC service area by assisting low-income residents in reducing energy use and lowering

their utility bills by implementing year-round weatherization measures. This program will be offered at no cost to eligible GCEC customers (eligible customers will be households at or below 200% of Federal Poverty Guidelines). Rather than operate this program on its own, GCEC will utilize services already available by providing \$20,000 each year to support existing weatherization programs offered in GCEC's service territory by the non-profit organization Southeastern Arizona Community Action Programs ("SEACAP"). The funding will allow for additional homes to receive weatherization assistance from SEACAP.

To qualify for this program, the applicant will need to contact SEACAP for an application. A SEACAP representative would then work with the customer to determine the weatherization measures necessary including: caulking, weather-stripping, attic/wall and duct insulation, and any other energy efficiency measures that may be needed.

The table below represents the estimated energy savings per year for 2012 and 2013 for the proposed LIW Program.

Budgeted Incentive \$ per home	\$400.00
Program Budget	\$20,000.00
# of Homes Supported by Budgeted Incentive	50
Savings Estimate Per Home	20%
Average Residential Usage Per Home (kWh)	801
Monthly Energy Savings Per Home (kWh)	160
Yearly Energy Savings Per Home (kWh)	1,922
Total Program Savings Per Year (kWh)	96,120

The proposed budget for the Residential LIW Program is \$20,000 per year. All budget dollars for this program will go toward the actual cost of materials of the weatherization efforts up to \$400 per household. The proposed budget (excluding the Support Programs budget) for the Residential LIW Program represents approximately 23% of the total 2012-2013 EE Plan budget. The Support Programs budget would be allocated across all of the proposed new programs.

## **CUSTOMER ENERGY EFFICIENCY EDUCATION PROGRAM**

GCEC's proposed Customer Energy Efficiency Education Program is designed to find ways to better educate customers on how to conserve energy usage through behavior modifications and other energy conservation measures. GCEC has negotiated a contract with Enerlyte, LLC ("Enerlyte") contingent upon the Commission approving the 2012-2013 EE Plan to provide energy efficiency education and reporting to GCEC and its customers. The entire \$20,000 budgeted for the Customer Energy Efficiency Education Program will be allocated to the third party, Enerlyte.

Currently, GCEC has Energy Efficiency publication materials available to customers through the "Together We Save" campaign on its website, [www.azgcec.coop](http://www.azgcec.coop), and through handouts and articles published in the bi-monthly Currents magazine. In the future under the Customer Energy Efficiency Education Program, Enerlyte will analyze participating residential

customer data on a monthly basis and provide energy efficiency feedback directly to the customers on their individual bill. All usage comparisons will be completed on an aggregated basis so not to cause any privacy concerns in sharing other customer information. Customers will also have the opportunity to opt out of receiving this usage information on their bill each month. Enerlyte will also provide pertinent energy savings tips and information to the customer on a customized website. GCEC and Enerlyte will work together to analyze and report participant kWh savings so GCEC will be able to effectively monitor all of the Residential Energy Efficiency Programs.

The table below represents the estimated energy savings per year for 2012 and 2013 for the proposed Customer Energy Efficiency Education Program.

	Customer Energy Efficiency Education Program	2012	2013
A	# of Customers in Program	5,000	6,667
B	Avg Monthly Usage Per Customer (kWh)	801	801
C	Total Yearly Usage (kWh) (A X B X 12)	48,060,000	64,083,204
D	Program kWh Savings (%)	2%	2%
E	Total Program Savings Per Year (kWh) (C X D)	961,200	1,281,664

The proposed budget for the Customer Energy Efficiency Education Program is \$20,000 per year. All of the proposed budget dollars for this program will be allocated to the third party administrator, Enerlyte, to cover the costs of facilitating the program. The proposed budget (excluding the Support Programs budget) for the Customer Energy Efficiency Program represents approximately 23% of the total 2012-2013 EE Plan budget. The Support Programs budget would be allocated across all of the proposed new programs.

## RESIDENTIAL TIME OF USE PROGRAM

GCEC's proposed TOU program is not a new program to GCEC; however, there are currently no residential customers on the TOU program which is designed to help with critical peak usage reduction. The GCEC TOU tariff was approved in Decision No. 71701 dated May 17, 2010. The Decision required GCEC to file, after fourteen months of the pilot TOU program, a summary report of the activity within the TOU program and for continuation of the TOU tariff. Staff is currently reviewing GCEC's summary report filed on July 21, 2011 in Docket No. E-01749A-09-0041.

With the 2012-2013 EE Plan, GCEC is not filing for any changes to the TOU tariff or any additional funding for the TOU program. The inclusion of this program as one of the 2012-2013 EE Plan options gives GCEC the opportunity to market the TOU option more to its customers. GCEC anticipates more customers will become interested in the TOU program as it is marketed along with all of the new energy efficiency programs proposed in this 2012-2013 EE Plan.

GCEC does not anticipate any direct kWh savings from the TOU program but rather a shift in the usage behavior to off-peak times. By participating in the TOU program, residential customers may be able to help GCEC with critical peak reduction thus being in essence a demand-side management program.

### **SUPPORT PROGRAMS: ADVERTISING BUDGET**

GCEC as part of its 2012-2013 EE Plan proposes an advertising budget of \$6,265 or approximately 7% of the total budget to support its energy efficiency program marketing activities to maximize participation in the energy efficiency programs. GCEC proposes to use the funds to promote its programs in a variety of cost-effective ways including bill stuffers, direct mailers, EE/DSM information on GCEC's website, stories in the GCEC newsletter or Currents magazine, local radio and newspaper advertisements, and promotional material available at GCEC's main office, Company annual member meetings, and the Graham County fair

### **SUPPORT PROGRAMS: ADMINISTRATION BUDGET**

GCEC also as part of its 2012-2013 EE Plan proposes an administration budget of \$8,627 or approximately 10% of the total budget of its energy efficiency programs. GCEC proposes to use the budget to provide the necessary funding for GCEC's internal administrative expenditures in managing, coordinating, researching, developing, and reporting costs associated with the energy efficiency programs. The energy efficiency programs have been selected by GCEC to minimize the amount of internal administrative costs allowing for more of the funds to be used for the actual energy efficiency programs.

### **COST-BENEFIT ANALYSIS**

The Commission's A.A.C. R14-2-2412(B) requires the Societal Test be used for determining the cost-effectiveness of a DSM program. Under the Societal Test, in order to be cost-effective, the ratio of benefits to costs must be greater than one. That is, the incremental benefits to society of a program must exceed the incremental costs of having the program in place. The societal costs for a DSM program include the cost of the measure and the cost of implementing the program, excluding rebates. The societal benefits of a DSM program include the avoided demand and energy costs.

Staff's cost-benefit analysis has concluded that four of GCEC's programs proposed as part of its 2012-2013 EE Plan are cost-effective. The table below represents the benefit/cost ratio for each of the proposed programs.

Program	Benefit/Cost Ratio
Refrigerator/Freezer Appliance Recycling Program	1.07
Residential CFL Lighting Program	2.19
Residential Customer Home Energy Audit Program	0.73
Residential LIW Program	1.02
Customer Energy Efficiency Education Program	1.46
Residential TOU Program	n/a

### **MEASUREMENT AND EVALUATION**

In order to ensure that the programs included in its 2012-2013 EE Plan are meeting the projected goals and objectives, GCEC intends to monitor and evaluate each of the above

mentioned programs on at least a bi-annual basis. This monitoring would include, but is not limited to:

- A review of customer accounts comparing past energy usage with current energy usage.
- Follow-up surveys with customers regarding any changes that they may/may not have made to their energy usage using information provided by GCEC and/or third party contractors.
- Review and analysis of information provided by third party implementation contractors who have assisted with the management of programs.

As required by A.A.C. R14-2-2405, GCEC intends to file on or before June 1 of each odd year an implementation plan for the next two calendar years. GCEC will also file by March 1 and September 1 of each year the reports required pursuant to A.A.C. R14-2-2409.

### **ENERGY EFFICIENCY ADJUSTOR SURCHARGE**

In its application, GCEC proposes a DSM adjustor surcharge in order to recover the costs associated with its proposed 2012-2013 EE Plan. GCEC has proposed a DSM adjustor surcharge of \$0.0007 per kWh with caps for each customer class similar to the existing caps in place for its Renewable Energy Standard tariff approved in Decision No. 72798 dated February 2, 2012. The proposed caps for the DSM adjustor surcharge would be \$2.00 per month for Residential, \$24.70 per month for Government and Agricultural, and \$74.10 per month for all other Non-Residential customers. GCEC proposed the use of caps to help mitigate the impact a DSM surcharge will have on customer bills especially larger commercial customers as well as government and agricultural customers that often have multiple accounts that may not be able to take advantage of the proposed programs that have more applicability to the residential customer class. The dollars collected from the DSM adjustor surcharge would fund its 2012-2013 EE Plan.

GCEC indicated that the proposed surcharge with caps would result in approximately \$86,271 collected from customers based on historical customer usage from April 1, 2010 to March 31, 2011. GCEC would keep the same surcharge in effect for both implementation years (2012 and 2013). A summary of the budget, by program, can be seen in the table below.

GRAHAM COUNTY ELECTRIC COOPERATIVE 2012-2013 EE PLAN BUDGET		
	2012	2013
New EE/DSM Programs	\$ 71,379	\$ 71,379
Refrigerator/Freezer Appliance Recycling Program	\$ 8,379	\$8,379
Residential CFL Lighting Program	\$ 3,000	\$3,000
Residential Customer Home Energy Audit Program	\$ 20,000	\$ 20,000
Residential LIW Program	\$ 20,000	\$ 20,000
Residential Energy Efficiency Education Program	\$ 20,000	\$20,000
Residential TOU Program	-	-
Support Programs (allocated across the programs)	\$ 14,892	\$14,892
Advertising Budget	\$ 6,265	\$ 6,265
Administration Budget	\$ 8,627	\$ 8,627



Total Operating Cost	\$ 86,271	\$ 86,271
Accumulated Cost	\$ 86,271	\$ 172,542

Based on the programs proposed under GCEC's 2012-2013 EE Plan, GCEC anticipates that its EE and DSM programs will provide a total of 1,238,369 kWh savings in 2012 or 0.805% of GCEC's 2011 projected kWh sales and a total of 2,797,202 kWh cumulative savings in 2013 or 1.807% of GCEC's 2012 projected kWh sales. The savings by program are illustrated in the table below (this table was adjusted by GCEC in response to a Staff data request on January 10, 2012 and is different from GCEC's original application). These savings fall short of the standards required by A.A.C. R14-2-2418 which states the savings goals in the Electric Energy Efficiency Rules for Cooperatives would be 2.25% in 2012 of projected 2011 kWh sales and 3.75% in 2013 of projected 2012 kWh sales. GCEC believes the plan balances the varied interests of its members. The programs are designed to reduce energy use and peak demand, and will be effective in its service area despite falling short of the standards and as such requests a partial waiver under A.A.C. R14-2-2419.

GRAHAM COUNTY ELECTRIC COOPERATIVE PROJECTED SAVINGS			
	2011	2012	2013
Projected Sales (kWh)	153,785,000	156,012,000	152,484,000
Projected Savings (kWh)	-	1,238,369	1,558,833
Projected Sales less Savings (kWh)	153,785,000	154,773,631	150,925,167
Required Savings from Prior Year Sales			
Required Savings (%)	1.25%	3.00%	5.00%
Cooperative Discount (%)	75%	75%	75%
Required Cooperative Savings (%)	0.94%	2.25%	3.75%
Required Cooperative Savings (kWh)	1,375,654	3,460,163	5,850,450
Accumulated Program Savings			
Existing Programs (kWh)			
New Programs (kWh)		1,238,369	1,558,833
Total Projected Savings (kWh)		1,238,369	2,797,202
Savings (%)		0.805%	1.807%
Difference Between Required and Projected Savings (kWh)		(2,221,794)	(3,053,248)

### **PARTIAL WAIVER & SHIFTING OF FUNDS REQUESTS**

In its application, GCEC anticipates not meeting the savings standards required for Cooperatives under A.A.C. R14-2-2418. GCEC maintains that its 2012-2013 EE Plan will maximize the potential for energy efficiency savings in the most cost-effective manner for its service territory and is estimated to result in over 2,797 Megawatt-hours in savings over two

years. To the extent that GCEC falls short of the savings requirements, GCEC seeks a partial waiver under A.A.C. R14-2-2419.

In addition, GCEC is requesting Commission approval to shift funds between EE programs and to modify the program budgets in the 2012-2013 EE Plan when it is cost-effective to do so. GCEC maintains that this flexibility is key to the program's success as GCEC can not foresee the response from its customers when implementing new programs. Allowing GCEC to shift funds and modify the program budgets will give GCEC the ability to maintain and maximize the most successful programs without oversubscribing them.

### **STAFF ANALYSIS AND RECOMMENDATIONS**

When evaluating the GCEC 2012-2013 EE Plan, Staff had several considerations to examine. Not only did Staff complete a cost-benefit analysis on each of the programs proposed in the 2012-2013 EE Plan, Staff also had to consider the competitive nature of service in Graham County and the usage patterns of Graham County customers when establishing the DSM adjustor rate structure.

As stated above, Staff has found that GCEC's proposed Refrigerator/Freezer Appliance Recycling Program, Residential CFL Lighting Program, Residential LIW Program and the Customer Energy Efficiency Education Program are cost-effective with the adjustments detailed below.

Staff did not include GCEC's TOU program as an energy efficiency program for the 2012-2013 EE plan, and the cost-benefit analysis for the Residential Home Energy Audit Program was not favorable. While the TOU program is not considered an energy efficiency program, it is considered a demand response mechanism so the kWhs saved from a TOU program may be counted toward meeting the EE Standards but can not be considered an energy efficiency program. As stated earlier, a home energy audit, in and of itself, is not an energy-saving measure. For the Residential Home Energy Audit Program to have a favorable cost-benefit analysis, additional measures must be implemented after the audit is completed that may lead to energy savings. Based on the information provided by the Company, the Residential Home Energy Audit Program did not have energy savings substantial enough to outweigh the costs. Staff recommends that the Residential Home Energy Audit Program not be approved and the budget dollars originally allocated for the Residential Home Energy Audit Program be spread across the other cost-effective programs as described below.

Refrigerator/Freezer Appliance Recycling Program: After discussions with other utilities, Staff has noted a trend of increased incentives needed to incent customers to recycle secondary older refrigerators/freezers. Given this new information, Staff recommends an increase in the budgeted incentive dollars for this program to \$50 per appliance (an increase of \$20 per appliance) and proposes GCEC budget for 60 refrigerators/freezers recycled each year. This change increases the incentive dollars from \$1,710 to \$3,000 per year, the direct implementation dollars from \$5,529 to \$5,820 per year, and the marketing dollars from \$1,140 to \$1,259.

**Residential CFL Lighting Program:** Staff recommends the budget dollars allocated to this program be increased from \$3,000 per year to \$7,000 per year allowing for expansion of the program from only residential customers to also include commercial customers. Staff believes this increase will lead to greater energy savings and is not too large of an increase that Ace Hardware would not be able to facilitate the increased demand.

**Residential LIW Program:** After discussions with SEACAP regarding the amount of funding required to reach certain levels of energy savings and based on similar programs with SEACAP by other Arizona regulated utilities, Staff recommends the budget dollars allocated to this program be increased from \$20,000 to \$41,000 in 2012 and \$49,000 in 2013 and the amount of dollars allocated to each household be increased from \$400 to \$1,500. These increases will allow for weatherization changes to be made that will have a larger impact to the overall level of energy savings generated. This change will allow for 27 eligible households in 2012 and 33 eligible households in 2013 to participate in the program with an estimated annual energy savings per household of 2,884 kWh.

**Customer Energy Efficiency Education Program:** To increase the level of participation to reach all residential customers (approximately 65% of residential customers were estimated to be included in the original filing for this program), Staff recommends a portion of the Residential Home Energy Audit Program budget dollars be allocated to this program increasing the budget dollars from \$20,000 to \$31,300 in 2012 and \$23,300 in 2013 (2012 includes upfront set-up costs that will not be incurred in 2013). Staff also recommends modifying the name of this program to the Residential Behavior Conservation Program to more closely reflect similar programs utilized by other utilities.

When looking at the structure of the DSM adjustor surcharge for GCEC and GCEC's ability to implement energy efficiency programs, Staff took into consideration the nature of service in Graham County. Prior to 1946, the Arizona General Utilities Company ("AGU") was the provider of electric service within Graham County in the areas currently served by the Town of Thatcher ("Thatcher"), the City of Safford ("Safford") and GCEC. In 1946, GCEC, Safford and Thatcher jointly acquired AGU and its customers. At that time, Safford and Thatcher took over providing electricity for customers within their boundaries and GCEC acquired what was left. The City of Safford and the Town of Thatcher are unregulated municipal utilities. In addition, there is currently a Territorial Settlement Agreement ("TSA") in place approved by the Commission in Decision No. 71471, dated January 26, 2010. The TSA outlines the transfer of certain GCEC assets that fall within a designated Safford Service Area effective January 1, 2016.

Staff's analysis of GCEC's ability to implement energy efficiency programs took into consideration that GCEC's service territory is located in close proximity to two municipal utilities which are not regulated by the Commission. Thatcher and Safford are not required through the EE Standards to implement new programs to meet energy efficiency standards, and their customers are not subject to surcharges to cover energy efficiency budgets. GCEC believes the fact that its customers are subject to energy efficiency surcharges while Thatcher and Safford customers are not puts it at a disadvantage in being able to attract new and retain existing commercial and industrial customers.

Staff also considered that under the current TSA, GCEC may be faced with a lighter load as of January 1, 2016 than it currently has today. The first customer transition moving from GCEC to Safford is the local Wal-Mart (the TSA outlines a transfer of load with Wal-Mart transferring to Safford and the Safford Municipal Airport transferring to GCEC by December 31, 2012). As of December 31, 2015, the TSA specifies that all customers and electric infrastructure within the Safford Service Area will be transferred to the City of Safford.

While Staff understands GCEC's concerns regarding remaining competitive for commercial and industrial customers with nearby unregulated municipalities thus leading to the application for a DSM adjustor surcharge with caps, Staff also realizes that the system as a whole benefits from the implementation of energy efficiency programs. Even though specific large commercial and industrial customers may not be able to participate directly in the 2012-2013 EE Plan, expanding the CFL program to include commercial customers will allow for some non-residential direct benefit. In addition, the reduction in energy usage overall from energy efficiency programs should result in GCEC purchasing less energy and a reduction of costs to all customers over time. Staff recommends that the 2012-2013 EE Implementation Plan surcharge dollars be spread out over all customers without the use of caps. Staff agrees with GCEC's proposed DSM adjustor surcharge rate and as such recommends the DSM adjustor surcharge be set at \$0.0007 per kWh for all customer classes, resulting in average monthly customer bill increases as detailed below.

Bill Increase From Proposed DSM Adjustor Surcharge				
Customer Class	Avg Summer Usage (kWh)	Summer Bill Increase	Avg Winter Usage (kWh)	Winter Bill Increase
Residential	903	\$0.63	669	\$0.47
Irrigation	2,819	\$1.97	481	\$0.34
Small Commercial	3,362	\$2.35	2,605	\$1.82
Large Commercial	227,723	\$159.41	184,224	\$128.96
Public Lighting	7,087	\$4.96	7,087	\$4.96
Gins	8,817	\$6.17	223,388	\$156.37
Security Lights	73	\$0.05	73	\$0.05

Staff also realizes that this is the first time GCEC has implemented any energy efficiency programs. Staff recognizes that GCEC purposely selected programs that have been successfully implemented by other utility providers and would be the least costly to implement from an administrative standpoint. As GCEC has submitted the same budget for 2012 and 2013, Staff recommends that the \$0.0007 per kWh surcharge be utilized throughout both years. At the end of the initial two year period, GCEC will be able to better estimate what the DSM adjustor surcharge should be taking into consideration the actual energy efficiency expenditures and the dollars collected through the DSM adjustor surcharge.

Staff understands that even with the above modifications to each program, it is unlikely that GCEC will meet the required EE Standard. Therefore, Staff recommends that with the 2012-2013 EE Implementation Plan as adjusted by Staff below, GCEC be granted a partial waiver under A.A.C. R14-2-2419 for 2012 and 2013.

GRAHAM COUNTY ELECTRIC COOPERATIVE 2012-2013 EE PLAN BUDGET <i>(REVISED BY STAFF)</i>		
	2012	2013
New EE/DSM Programs	\$ 88,379	\$ 88,379
Refrigerator/Freezer Appliance Recycling Program	\$ 10,079	\$10,079
Residential CFL Lighting Program	\$ 6,000	\$ 6,000
Residential Customer Home Energy Audit Program	-	-
Residential LIW Program	\$ 41,000	\$ 49,000
Residential Conservation Behavior Program	\$ 31,300	\$ 23,300
Residential TOU Program	-	-
Support Programs (allocated across the programs)	\$ 14,892	\$14,892
Advertising Budget	\$ 6,265	\$ 6,265
Administration Budget	\$ 8,627	\$ 8,627
Total Operating Cost	\$ 103,271	\$ 103,271
Accumulated Cost	\$ 103,271	\$ 206,542

GRAHAM COUNTY ELECTRIC COOPERATIVE PROJECTED SAVINGS <i>(REVISED BY STAFF)</i>			
	2011	2012	2013
Projected Sales (kWh)	162,013,919*	156,012,000	152,484,000
Projected Savings (kWh)	-	1,777,091	1,794,393
Projected Sales less Savings (kWh)	162,013,919	154,234,909	150,689,607
Required Savings from Prior Year Sales			
Required Savings (%)	1.25%	3.00%	5.00%
Cooperative Discount (%)	75%	75%	75%
Required Cooperative Savings (%)	0.94%	2.25%	3.75%
Required Cooperative Savings (kWh)	1,375,654*	3,645,313*	5,850,450
Accumulated Program Savings			
Existing Programs (kWh)			
New Programs (kWh)		1,777,091	1,794,393
Total Projected Savings (kWh)		1,777,091	3,571,483
Savings (%)		1.097%	2.289%
Difference Between Required and Projected Savings (kWh)		(1,868,222)	(2,278,967)

\*2010 and 2011 actual sales were used in the calculation of the Required Cooperative Savings.

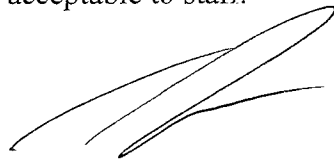
In addition, because GCEC has no prior experience with implementing energy efficiency programs and due to the timing of the approval of the proposed plan, Staff recommends that GCEC should implement its plan for the remainder of 2012 and all of 2013 calendar years. Therefore, GCEC would be required to file its next energy efficiency plan no later than June 1,

2013 pursuant to A.A.C. R14-2-2418(B). Also, Staff recommends that GCEC's initial filing of a DSM Progress Report in accordance with A.A.C. R14-2-2409 be filed no later than March 1, 2013 and that for subsequent filings, GCEC comply with all of the filing dates specified in the EE Standards.

Staff further recommends that given that this is the first time GCEC has implemented energy efficiency programs within its service territory and the interest in these programs cannot be proven or negated at this point in time, GCEC be granted approval to shift funds between the approved energy efficiency programs when it is cost-effective to do so and allows for GCEC to stay within the overall established energy efficiency budget.

Staff also recommends that GCEC revise Appendix 1, the Demand Side Management Adjustment – Schedule A-DSM Tariff, from its initial filing so that the tariff is consistent with the terms of the Commission's Decision. This tariff should be submitted to Docket Control within 15 days of the effective date of this Decision.

In addition, Staff recommends that GCEC provide notice to its customers of the new DSM adjustor surcharge within 15 days of the effective date of this Decision in a form acceptable to staff.



Steven M. Olea  
Director  
Utilities Division

SMO:RSP:sms/SH

ORIGINATOR: Ranelle Paladino

1                               **BEFORE THE ARIZONA CORPORATION COMMISSION.**

2       GARY PIERCE

Chairman

3       BOB STUMP

Commissioner

4       SANDRA D. KENNEDY

Commissioner

5       PAUL NEWMAN

Commissioner

6       BRENDA BURNS

Commissioner

8       IN THE MATTER OF THE APPLICATION }  
9       OF GRAHAM COUNTY ELECTRIC }  
10      COOPERATIVE, INC. FOR APPROVAL OF }  
11      ITS ELECTRIC ENERGY EFFICIENCY }  
12      IMPLEMENTATION PLAN FOR 2012 AND }  
13      2013 }

DOCKET NO. E-01749A-11-0235

DECISION NO. \_\_\_\_\_

ORDER

13     Open Meeting  
14     July 18 and July 19, 2012  
15     Phoenix, Arizona

15     BY THE COMMISSION:

16                               FINDINGS OF FACT

17     INTRODUCTION

18             1.     Graham County Electric Cooperative, Inc. ("GCEC" or the "Company") is  
19     certificated to provide electric service within portions of Arizona, pursuant to authority granted by  
20     the Arizona Corporation Commission ("Commission").

21             2.     On June 6, 2011, GCEC filed an application with the Commission requesting  
22     approval of its Electric Energy Efficiency Implementation Plan for 2012 and 2013 ("2012-2013  
23     EE Plan"). GCEC is submitting its 2012-2013 EE Plan in accordance with A.A.C. R14-2-2418.  
24     In addition to requesting approval of its proposed 2012-2013 EE Plan, GCEC has also requested a  
25     partial waiver of the percentage savings goals required in A.A.C. R14-2-2404.

26             3.     GCEC provides electric service to customers in Graham County. GCEC serves  
27     approximately 9,916 customers – 78% are residential customers. Less than 0.2% of GCEC's  
28     customer base consists of large industrial customers. GCEC does not currently have a Demand

Side Management ("DSM") portfolio but does have a DSM adjustor rate mechanism in place (Decision No. 70289). GCEC's 2012-2013 EE Plan contains all new programs, with the exception of the Residential Time Of Use ("TOU") rate schedule, which currently has no customers on it.

4. The Commission's Electric Energy Efficiency Standards ("EE Standards") became effective January 1, 2011. The EE Standards clarified that electric public service corporations had to file their initial energy efficiency plans by the end of January 2011 and electric distribution cooperatives had until June 1, 2011 to file their respective plans. In addition, A.A.C. R14-2-2418 requires that cooperatives obtain at least 75% of the savings goals specified in A.A.C. R14-2-2404 which means the savings goals in the Electric Energy Efficiency Rules for GCEC would be 2.25% in 2012 and 3.75% in 2013. In accordance with A.A.C. R14-2-2405(C), GCEC notified customers of its 2012-2013 EE Plan filing in the April 2012 billing cycle.

#### IMPLEMENTATION PLAN

5. GCEC's 2012-2013 EE Plan consists of several new programs. Specifically, GCEC proposes a total of six residential programs and two support programs. The support programs included are offered to provide education and outreach to GCEC customers. The following programs have been included in GCEC's proposed 2012-2013 EE Plan:

- Refrigerator/Freezer Appliance Recycling Program
- Residential Compact Fluorescent Lamps ("CFLs") Lighting Program
- Residential Home Energy Audit Program
- Residential Low Income Weatherization ("LIW") Program
- Customer Energy Efficiency Education Program
- Residential TOU Rates

The Support Programs proposed by GCEC include: the Advertising Budget and Administration Budget.

#### REFRIGERATOR/FREEZER APPLIANCE RECYCLING PROGRAM

6. GCEC'S proposed appliance recycling program is designed to decrease energy usage by incenting the residential customers to recycle secondary old refrigerators and freezers.



1 These appliances will be recycled through a process that captures all hazardous materials and  
2 recycles as much material as possible (>95% will be recycled).

3 7. The marketing and advertising of this program will be completed primarily by  
4 GCEC, but the appliance pickup and recycling services as well as the tracking of the appliances  
5 recycled and the savings associated with such recycling will be managed by a third party  
6 implementation contractor. GCEC plans to pool its efforts with other utilities to allow GCEC to  
7 maximize promotion and minimize cost. GCEC will provide a \$30 rebate to its customers per unit  
8 recycled to incent participation in the program. GCEC plans to offer these recycling rebates until  
9 such time as the budget for the program is exhausted.

#### 10 *ENERGY SAVINGS AND BUDGET*

11 8. The table below shows the demand and energy savings projected in 2012 and 2013  
12 for the proposed Appliance Recycling Program.

	2012	2013
Number of Appliances Recycled	57	57
Peak Demand Savings per unit (kW)	0.09	0.09
Annual Energy Savings per unit (kWh)	811	811

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15  
16  
17  
18 9. The proposed budget for the Appliance Recycling Program is \$8,379 per year split  
19 between direct implementation costs, marketing costs, and incentive dollars. The proposed budget  
20 (excluding the Support Programs budget) for the Appliance Recycling Program represents  
21 approximately 10% of the total 2012-2013 EE Plan budget. The Support Programs budget would  
22 be allocated across all of the proposed new programs.

#### 23 *RESIDENTIAL COMPACT FLUORESCENT LAMPS LIGHTING PROGRAM*

24 10. GCEC's proposed CFL lighting program is designed to promote the installation of  
25 high-efficiency CFLs in homes within the GCEC service territory. The program will provide  
26 discount pricing from a local retailer (specifically the local Ace Hardware). Customers will be  
27 referred to the participating retailer to purchase qualifying CFLs, and the discount pricing will be  
28 passed on to GCEC's customers through a negotiated agreement with Ace Hardware.

11. This program will be marketed and advertised primarily by GCEC. But the overall administration of the program will incorporate working with the Ace Hardware store. Ace Hardware will sell the CFLs at a discounted price and will track the number of CFLs sold under the rebate program to seek reimbursement from GCEC for the agreed upon rebate amounts. Ace Hardware will provide GCEC with detailed reports of purchased CFLs and GCEC will, in turn, calculate the kWh saved as a result of those CFL purchases. GCEC plans to offer this program until such time as the budget for the program is exhausted.

#### *ENERGY SAVINGS AND BUDGET*

12. The table below shows the demand and energy savings projected in 2012 and 2013 for the proposed Residential CFL Lighting Program.

	2012	2013
Projected Lamp Sales	2192	2192
Peak Demand Savings per unit (kW)	0.0506	0.0506
Annual Energy Savings per unit (kWh)	55.66	55.66

13. The proposed budget for the Residential CFL Lighting Program is \$3,000 per year with all of the dollars going toward discounting the CFLs. The proposed budget (excluding the Support Programs budget) for the Residential CFL Lighting Program represents approximately 4% of the total 2012-2013 EE Plan budget. The Support Programs budget would be allocated across all of the proposed new programs.

#### *RESIDENTIAL CUSTOMER HOME ENERGY AUDIT PROGRAM*

14. GCEC's proposed Residential Customer Home Energy Audit Program is designed to provide customers with additional information relating to his/her own energy usage to enable the customer to make educated decisions relating to how he/she can conserve energy. Customers utilizing this program would schedule a visit at his/her home with a GCEC representative to at a minimum: conduct an analysis of the home's thermal envelope, survey the electric appliances, and review the living habits of all occupants. The GCEC representative would then provide

1 appropriate recommendations based on the results of the audit and distribute energy efficiency-  
2 related materials for the customer to review.

3 15. A home energy audit is a comprehensive home examination designed to assess how  
4 much energy the home is using and to evaluate what measures can be taken to improve efficiency.  
5 The most common conditions found are leaks in the heating, ventilation and air conditioning  
6 (HVAC) duct system, penetrations which allow air exchange and connection between the attic and  
7 exterior of the home with the conditioned space; insulation failures; and unsealed windows and  
8 doors.

9 16. Professional auditors use a variety of techniques and equipment to determine the  
10 energy efficiency of a home. Thorough audits often use equipment such as blower doors, which  
11 measure the extent of leaks in the building envelope, and duct blasters which test and document  
12 the air tightness of forced air duct systems.

13 17. It is important to note that a home energy audit, in and of itself, is not an energy-  
14 saving measure. Additional measures must be implemented to correct existing conditions within  
15 the home that are causing homeowners to waste energy and incur high electric bills.

16 18. As part of GCEC's 2012-2013 EE Plan, this Residential Home Energy Audit  
17 Program will be marketed and advertised primarily by GCEC; however, GCEC plans to use the  
18 expertise of a Building Performance Institute ("BPI") certified third party implementation  
19 contractor (specifically Pro Home Inspections in Safford, AZ) to perform the home energy audits.  
20 Once the audit has been completed, GCEC will pay the contractor for 75% of the Home Energy  
21 Audit costs (up to \$150 per GCEC customer). GCEC will continue offering this program until  
22 such time as the budget for the program is exhausted.

### 23 *ENERGY SAVINGS AND BUDGET*

24 19. The table below shows the energy savings projected for 2012 and 2013 for the  
25 proposed Residential Customer Home Energy Audit Program. All of the \$20,000 budgeted each  
26 year for this program will go toward paying for 75% of the Home Energy Audit costs up to \$150  
27 per customer (for the Home Energy Audit this would represent \$150 of the total \$200 Home  
28 Energy Audit cost).

Budgeted Incentive \$ per home	\$150.00
Program Budget	\$20,000.00
# of Homes Supported by Budgeted Incentive	133
Estimated Participation Level	50%
# of Homes Estimated to be Inspected	67
% of Homes Implementing Energy Efficiency	10%
# of Homes Implementing Energy Efficiency	6.67
Savings Estimate Per Home	20%
Average Residential Usage Per Home (kWh)	801
Monthly Energy Savings Per Home (kWh)	160
Yearly Energy Savings Per Home (kWh)	1,922
Total Program Savings Per Year (kWh)	12,816

20. The proposed budget for the Residential Customer Home Energy Audit Program is \$20,000 per year. The proposed budget (excluding the Support Programs budget) for the Residential Customer Home Energy Audit Program represents approximately 23% of the total 2012-2013 EE Plan budget. The Support Programs budget would be allocated across all of the proposed new programs.

#### RESIDENTIAL LOW INCOME WEATHERIZATION PROGRAM

21. GCEC's proposed LIW Program is designed to improve energy efficiency in homes in the GCEC service area by assisting low-income residents in reducing energy use and lowering their utility bills by implementing year-round weatherization measures. This program will be offered at no cost to eligible GCEC customers (eligible customers will be households at or below 200% of Federal Poverty Guidelines). Rather than operate this program on its own, GCEC will utilize services already available by providing \$20,000 each year to support existing weatherization programs offered in GCEC's service territory by the non-profit organization

1 Southeastern Arizona Community Action Programs ("SEACAP"). The funding will allow for  
2 additional homes to receive weatherization assistance from SEACAP.

3 22. To qualify for this program, the applicant will need to contact SEACAP for an  
4 application. A SEACAP representative would then work with the customer to determine the  
5 weatherization measures necessary including: caulking, weather-stripping, attic/wall and duct  
6 insulation, and any other energy efficiency measures that may be needed.

7 23. The table below represents the estimated energy savings per year for 2012 and 2013  
8 for the proposed LIW Program.

Budgeted Incentive \$ per home	\$400.00
Program Budget	\$20,000.00
# of Homes Supported by Budgeted Incentive	50
Savings Estimate Per Home	20%
Average Residential Usage Per Home (kWh)	801
Monthly Energy Savings Per Home (kWh)	160
Yearly Energy Savings Per Home (kWh)	1,922
Total Program Savings Per Year (kWh)	96,120

19  
20 24. The proposed budget for the Residential LIW Program is \$20,000 per year. All  
21 budget dollars for this program will go toward the actual cost of materials of the weatherization  
22 efforts up to \$400 per household. The proposed budget (excluding the Support Programs budget)  
23 for the Residential LIW Program represents approximately 23% of the total 2012-2013 EE Plan  
24 budget. The Support Programs budget would be allocated across all of the proposed new  
25 programs.

26 ...

27 ...

28 ...

## 1 CUSTOMER ENERGY EFFICIENCY EDUCATION PROGRAM

2 25. GCEC's proposed Customer Energy Efficiency Education Program is designed to  
3 find ways to better educate customers on how to conserve energy usage through behavior  
4 modifications and other energy conservation measures. GCEC has negotiated a contract with  
5 Enerlyte, LLC ("Enerlyte") contingent upon the Commission approving the 2012-2013 EE Plan to  
6 provide energy efficiency education and reporting to GCEC and its customers. The entire \$20,000  
7 budgeted for the Customer Energy Efficiency Education Program will be allocated to the third  
8 party, Enerlyte.

9 26. Currently, GCEC has Energy Efficiency publication materials available to  
10 customers through the "Together We Save" campaign on its website, [www.azgcec.coop](http://www.azgcec.coop), and  
11 through handouts and articles published in the bi-monthly Currents magazine. In the future under  
12 the Customer Energy Efficiency Education Program, Enerlyte will analyze participating residential  
13 customer data on a monthly basis and provide energy efficiency feedback directly to the customers  
14 on their individual bill. All usage comparisons will be completed on an aggregated basis so not to  
15 cause any privacy concerns in sharing other customer information. Customers will also have the  
16 opportunity to opt out of receiving this usage information on their bill each month. Enerlyte will  
17 also provide pertinent energy savings tips and information to the customer on a customized  
18 website. GCEC and Enerlyte will work together to analyze and report participant kWh savings so  
19 GCEC will be able to effectively monitor all of the Residential Energy Efficiency Programs.

20 27. The table below represents the estimated energy savings per year for 2012 and 2013  
21 for the proposed Customer Energy Efficiency Education Program.

	Customer Energy Efficiency Education Program	2012	2013
22			
23	A # of Customers in Program	5,000	6,667
24	B Avg Monthly Usage Per Customer (kWh)	801	801
25	C Total Yearly Usage (kWh) (A X B X 12)	48,060,000	64,083,204
26	D Program kWh Savings (%)	2%	2%
27	E Total Program Savings Per Year (kWh) (C X D)	961,200	1,281,664
28			

28. The proposed budget for the Customer Energy Efficiency Education Program is \$20,000 per year. All of the proposed budget dollars for this program will be allocated to the third party administrator, Enerlyte, to cover the costs of facilitating the program. The proposed budget (excluding the Support Programs budget) for the Customer Energy Efficiency Program represents approximately 23% of the total 2012-2013 EE Plan budget. The Support Programs budget would be allocated across all of the proposed new programs.

#### RESIDENTIAL TIME OF USE PROGRAM

29. GCEC's proposed TOU program is not a new program to GCEC; however, there are currently no residential customers on the TOU program which is designed to help with critical peak usage reduction. The GCEC TOU tariff was approved in Decision No. 71701 dated May 17, 2010. The Decision required GCEC to file, after fourteen months of the pilot TOU program, a summary report of the activity within the TOU program and for continuation of the TOU tariff. Staff is currently reviewing GCEC's summary report filed on July 21, 2011 in Docket No. E-01749A-09-0041.

30. With the 2012-2013 EE Plan, GCEC is not filing for any changes to the TOU tariff or any additional funding for the TOU program. The inclusion of this program as one of the 2012-2013 EE Plan options gives GCEC the opportunity to market the TOU option more to its customers. GCEC anticipates more customers will become interested in the TOU program as it is marketed along with all of the new energy efficiency programs proposed in this 2012-2013 EE Plan.

31. GCEC does not anticipate any direct kWh savings from the TOU program but rather a shift in the usage behavior to off-peak times. By participating in the TOU program, residential customers may be able to help GCEC with critical peak reduction thus being in essence a demand-side management program.

#### SUPPORT PROGRAMS: ADVERTISING BUDGET

32. GCEC as part of its 2012-2013 EE Plan proposes an advertising budget of \$6,265 or approximately 7% of the total budget to support its energy efficiency program marketing activities to maximize participation in the energy efficiency programs. GCEC proposes to use the

1 funds to promote its programs in a variety of cost-effective ways including bill stuffers, direct  
2 mailers, EE/DSM information on GCEC's website, stories in the GCEC newsletter or Currents  
3 magazine, local radio and newspaper advertisements, and promotional material available at  
4 GCEC's main office, Company annual member meetings, and the Graham County fair.

5 SUPPORT PROGRAMS: ADMINISTRATION BUDGET

6 33. GCEC also as part of its 2012-2013 EE Plan proposes an administration budget of  
7 \$8,627 or approximately 10% of the total budget of its energy efficiency programs. GCEC  
8 proposes to use the budget to provide the necessary funding for GCEC's internal administrative  
9 expenditures in managing, coordinating, researching, developing, and reporting costs associated  
10 with the energy efficiency programs. The energy efficiency programs have been selected by  
11 GCEC to minimize the amount of internal administrative costs allowing for more of the funds to  
12 be used for the actual energy efficiency programs.

13 COST-BENEFIT ANALYSIS

14 34. The Commission's A.A.C. R14-2-2412(B) requires the Societal Test be used for  
15 determining the cost-effectiveness of a DSM program. Under the Societal Test, in order to be  
16 cost-effective, the ratio of benefits to costs must be greater than one. That is, the incremental  
17 benefits to society of a program must exceed the incremental costs of having the program in place.  
18 The societal costs for a DSM program include the cost of the measure and the cost of  
19 implementing the program, excluding rebates. The societal benefits of a DSM program include the  
20 avoided demand and energy costs.

21 35. Staff's cost-benefit analysis has concluded that four of GCEC's programs proposed  
22 as part of its 2012-2013 EE Plan are cost-effective. The table below represents the benefit/cost  
23 ratio for each of the proposed programs.

Program	Benefit/Cost Ratio
Refrigerator/Freezer Appliance Recycling Program	1.07
Residential CFL Lighting Program	2.19
Residential Customer Home Energy Audit Program	0.73
Residential LIW Program	1.02



Customer Energy Efficiency Education Program	1.46
Residential TOU Program	n/a

#### MEASUREMENT AND EVALUATION

36. In order to ensure that the programs included in its 2012-2013 EE Plan are meeting the projected goals and objectives, GCEC intends to monitor and evaluate each of the above mentioned programs on at least a bi-annual basis. This monitoring would include, but is not limited to:

- A review of customer accounts comparing past energy usage with current energy usage.
- Follow-up surveys with customers regarding any changes that they may/may not have made to their energy usage using information provided by GCEC and/or third party contractors.
- Review and analysis of information provided by third party implementation contractors who have assisted with the management of programs.

37. As required by A.A.C. R14-2-2405, GCEC intends to file on or before June 1 of each odd year an implementation plan for the next two calendar years. GCEC will also file by March 1 and September 1 of each year the reports required pursuant to A.A.C. R14-2-2409.

#### ENERGY EFFICIENCY ADJUSTOR SURCHARGE

38. In its application, GCEC proposes a DSM adjustor surcharge in order to recover the costs associated with its proposed 2012-2013 EE Plan. GCEC has proposed a DSM adjustor surcharge of \$0.0007 per kWh with caps for each customer class similar to the existing caps in place for its Renewable Energy Standard tariff approved in Decision No. 72798 dated February 2, 2012. The proposed caps for the DSM adjustor surcharge would be \$2.00 per month for Residential, \$24.70 per month for Government and Agricultural, and \$74.10 per month for all other Non-Residential customers. GCEC proposed the use of caps to help mitigate the impact a DSM surcharge will have on customer bills especially larger commercial customers as well as government and agricultural customers that often have multiple accounts that may not be able to take advantage of the proposed programs that have more applicability to the residential customer class. The dollars collected from the DSM adjustor surcharge would fund its 2012-2013 EE Plan.

39. GCEC indicated that the proposed surcharge with caps would result in approximately \$86,271 collected from customers based on historical customer usage from April 1, 2010 to March 31, 2011. GCEC would keep the same surcharge in effect for both implementation years (2012 and 2013). A summary of the budget, by program, can be seen in the table below.

GRAHAM COUNTY ELECTRIC COOPERATIVE		
2012-2013 EE PLAN BUDGET		
	2012	2013
New EE/DSM Programs	\$ 71,379	\$ 71,379
Refrigerator/Freezer Appliance Recycling Program	\$ 8,379	\$8,379
Residential CFL Lighting Program	\$ 3,000	\$3,000
Residential Customer Home Energy Audit Program	\$ 20,000	\$ 20,000
Residential LIW Program	\$ 20,000	\$ 20,000
Residential Energy Efficiency Education Program	\$ 20,000	\$20,000
Residential TOU Program	-	-
Support Programs (allocated across the programs)	\$ 14,892	\$14,892
Advertising Budget	\$ 6,265	\$ 6,265
Administration Budget	\$ 8,627	\$ 8,627
Total Operating Cost	\$ 86,271	\$ 86,271
Accumulated Cost	\$ 86,271	\$ 172,542

40. Based on the programs proposed under GCEC's 2012-2013 EE Plan, GCEC anticipates that its EE and DSM programs will provide a total of 1,238,369 kWh savings in 2012 or 0.805% of GCEC's 2011 projected kWh sales and a total of 2,797,202 kWh cumulative savings in 2013 or 1.807% of GCEC's 2012 projected kWh sales. The savings by program are illustrated in the table below (this table was adjusted by GCEC in response to a Staff data request on January 10, 2012 and is different from GCEC's original application). These savings fall short of the

standards required by A.A.C. R14-2-2418 which states the savings goals in the Electric Energy Efficiency Rules for Cooperatives would be 2.25% in 2012 of projected 2011 kWh sales and 3.75% in 2013 of projected 2012 kWh sales. GCEC believes the plan balances the varied interests of its members. The programs are designed to reduce energy use and peak demand, and will be effective in its service area despite falling short of the standards and as such requests a partial waiver under A.A.C. R14-2-2419.

GRAHAM COUNTY ELECTRIC COOPERATIVE			
PROJECTED SAVINGS			
	2011	2012	2013
Projected Sales (kWh)	153,785,000	156,012,000	152,484,000
Projected Savings (kWh)	-	1,238,369	1,558,833
Projected Sales less Savings (kWh)	153,785,000	154,773,631	150,925,167
Required Savings from Prior Year Sales			
Required Savings (%)	1.25%	3.00%	5.00%
Cooperative Discount (%)	75%	75%	75%
Required Cooperative Savings (%)	0.94%	2.25%	3.75%
Required Cooperative Savings (kWh)	1,375,654	3,460,163	5,850,450
Accumulated Program Savings			
Existing Programs (kWh)			
New Programs (kWh)		1,238,369	1,558,833
Total Projected Savings (kWh)		1,238,369	2,797,202
Savings (%)		0.805%	1.807%
Difference Between Required and Projected Savings (kWh)		(2,221,794)	(3,053,248)

#### PARTIAL WAIVER & SHIFTING OF FUNDS REQUESTS

Decision No. \_\_\_\_\_

1       41. In its application, GCEC anticipates not meeting the savings standards required for  
2 Cooperatives under A.A.C. R14-2-2418. GCEC maintains that its 2012-2013 EE Plan will  
3 maximize the potential for energy efficiency savings in the most cost-effective manner for its  
4 service territory and is estimated to result in over 2,797 Megawatt-hours in savings over two years.  
5 To the extent that GCEC falls short of the savings requirements, GCEC seeks a partial waiver  
6 under A.A.C. R14-2-2419.

7       42. In addition, GCEC is requesting Commission approval to shift funds between EE  
8 programs and to modify the program budgets in the 2012-2013 EE Plan when it is cost-effective to  
9 do so. GCEC maintains that this flexibility is key to the program's success as GCEC can not  
10 foresee the response from its customers when implementing new programs. Allowing GCEC to  
11 shift funds and modify the program budgets will give GCEC the ability to maintain and maximize  
12 the most successful programs without oversubscribing them.

#### 13 STAFF ANALYSIS AND RECOMMENDATIONS

14       43. When evaluating the GCEC 2012-2013 EE Plan, Staff had several considerations to  
15 examine. Not only did Staff complete a cost-benefit analysis on each of the programs proposed in  
16 the 2012-2013 EE Plan, Staff also had to consider the competitive nature of service in Graham  
17 County and the usage patterns of Graham County customers when establishing the DSM adjustor  
18 rate structure.

19       44. As stated above, Staff has found that GCEC's proposed Refrigerator/Freezer  
20 Appliance Recycling Program, Residential CFL Lighting Program, Residential LIW Program and  
21 the Customer Energy Efficiency Education Program are cost-effective with the adjustments  
22 detailed below.

23       45. Staff did not include GCEC's TOU program as an energy efficiency program for  
24 the 2012-2013 EE plan, and the cost-benefit analysis for the Residential Home Energy Audit  
25 Program was not favorable. While the TOU program is not considered an energy efficiency  
26 program, it is considered a demand response mechanism so the kWhs saved from a TOU program  
27 may be counted toward meeting the EE Standards but can not be considered an energy efficiency  
28 program. As stated earlier, a home energy audit, in and of itself, is not an energy-saving measure.

1 For the Residential Home Energy Audit Program to have a favorable cost-benefit analysis,  
2 additional measures must be implemented after the audit is completed that may lead to energy  
3 savings. Based on the information provided by the Company, the Residential Home Energy Audit  
4 Program did not have energy savings substantial enough to outweigh the costs. Staff has  
5 recommended that the Residential Home Energy Audit Program not be approved and the budget  
6 dollars originally allocated for the Residential Home Energy Audit Program be spread across the  
7 other cost-effective programs as described below.

8 46. Refrigerator/Freezer Appliance Recycling Program: After discussions with other  
9 utilities, Staff has noted a trend of increased incentives needed to incent customers to recycle  
10 secondary older refrigerators/freezers. Given this new information, Staff has recommended an  
11 increase in the budgeted incentive dollars for this program to \$50 per appliance (an increase of \$20  
12 per appliance) and proposes GCEC budget for 60 refrigerators/freezers recycled each year. This  
13 ~~change increases the incentive dollars from \$1,710 to \$3,000 per year, the direct implementation~~  
14 dollars from \$5,529 to \$5,820 per year, and the marketing dollars from \$1,140 to \$1,259.

15 47. Residential CFL Lighting Program: Staff has recommended the budget dollars  
16 allocated to this program be increased from \$3,000 per year to \$7,000 per year allowing for  
17 expansion of the program from only residential customers to also include commercial customers.  
18 Staff believes this increase will lead to greater energy savings and is not too large of an increase  
19 that Ace Hardware would not be able to facilitate the increased demand.

20 48. Residential LIW Program: After discussions with SEACAP regarding the amount  
21 of funding required to reach certain levels of energy savings and based on similar programs with  
22 SEACAP by other Arizona regulated utilities, Staff has recommended the budget dollars allocated  
23 to this program be increased from \$20,000 to \$41,000 in 2012 and \$49,000 in 2013 and the amount  
24 of dollars allocated to each household be increased from \$400 to \$1,500. These increases will  
25 allow for weatherization changes to be made that will have a larger impact to the overall level of  
26 energy savings generated. This change will allow for 27 eligible households in 2012 and 33  
27 eligible households in 2013 to participate in the program with an estimated annual energy savings  
28 per household of 2,884 kWh.

1        49. Customer Energy Efficiency Education Program: To increase the level of  
2 participation to reach all residential customers (approximately 65% of residential customers were  
3 estimated to be included in the original filing for this program), Staff has recommended a portion  
4 of the Residential Home Energy Audit Program budget dollars be allocated to this program  
5 increasing the budget dollars from \$20,000 to \$31,300 in 2012 and \$23,300 in 2013 (2012 includes  
6 upfront set-up costs that will not be incurred in 2013). Staff also has recommended modifying the  
7 name of this program to the Residential Behavior Conservation Program to more closely reflect  
8 similar programs utilized by other utilities.

9        50. When looking at the structure of the DSM adjustor surcharge for GCEC and  
10 GCEC's ability to implement energy efficiency programs, Staff took into consideration the nature  
11 of service in Graham County. Prior to 1946, the Arizona General Utilities Company ("AGU") was  
12 the provider of electric service within Graham County in the areas currently served by the Town of  
13 Thatcher ("Thatcher"), the City of Safford ("Safford") and GCEC. In 1946, GCEC, Safford and  
14 Thatcher jointly acquired AGU and its customers. At that time, Safford and Thatcher took over  
15 providing electricity for customers within their boundaries and GCEC acquired what was left. The  
16 City of Safford and the Town of Thatcher are unregulated municipal utilities. In addition, there is  
17 currently a Territorial Settlement Agreement ("TSA") in place approved by the Commission in  
18 Decision No. 71471, dated January 26, 2010. The TSA outlines the transfer of certain GCEC  
19 assets that fall within a designated Safford Service Area effective January 1, 2016.

20        51. Staff's analysis of GCEC's ability to implement energy efficiency programs took  
21 into consideration that GCEC's service territory is located in close proximity to two municipal  
22 utilities which are not regulated by the Commission. Thatcher and Safford are not required  
23 through the EE Standards to implement new programs to meet energy efficiency standards, and  
24 their customers are not subject to surcharges to cover energy efficiency budgets. GCEC believes  
25 the fact that its customers are subject to energy efficiency surcharges while Thatcher and Safford  
26 customers are not puts it at a disadvantage in being able to attract new and retain existing  
27 commercial and industrial customers.

28

52. Staff also considered that under the current TSA, GCEC may be faced with a lighter load as of January 1, 2016 than it currently has today. The first customer transition moving from GCEC to Safford is the local Wal-Mart (the TSA outlines a transfer of load with Wal-Mart transferring to Safford and the Safford Municipal Airport transferring to GCEC by December 31, 2012). As of December 31, 2015, the TSA specifies that all customers and electric infrastructure within the Safford Service Area will be transferred to the City of Safford.

53. While Staff understands GCEC's concerns regarding remaining competitive for commercial and industrial customers with nearby unregulated municipalities thus leading to the application for a DSM adjustor surcharge with caps, Staff also realizes that the system as a whole benefits from the implementation of energy efficiency programs. Even though specific large commercial and industrial customers may not be able to participate directly in the 2012-2013 EE Plan, expanding the CFL program to include commercial customers will allow for some non-residential direct benefit. In addition, the reduction in energy usage overall from energy efficiency programs should result in GCEC purchasing less energy and a reduction of costs to all customers over time. Staff has recommended that the 2012-2013 EE Implementation Plan surcharge dollars be spread out over all customers without the use of caps. Staff agrees with GCEC's proposed DSM adjustor surcharge rate and as such has recommended the DSM adjustor surcharge be set at \$0.0007 per kWh for all customer classes, resulting in average monthly customer bill increases as detailed below.

Bill Increase From Proposed DSM Adjustor Surcharge				
Customer Class	Avg Summer Usage (kWh)	Summer Bill Increase	Avg Winter Usage (kWh)	Winter Bill Increase
Residential	903	\$0.63	669	\$0.47
Irrigation	2,819	\$1.97	481	\$0.34
Small Commercial	3,362	\$2.35	2,605	\$1.82
Large Commercial	227,723	\$159.41	184,224	\$128.96
Public Lighting	7,087	\$4.96	7,087	\$4.96
Gins	8,817	\$6.17	223,388	\$156.37

Security Lights	73	\$0.05	73	\$0.05
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54. Staff also realizes that this is the first time GCEC has implemented any energy efficiency programs. Staff recognizes that GCEC purposely selected programs that have been successfully implemented by other utility providers and would be the least costly to implement from an administrative standpoint. As GCEC has submitted the same budget for 2012 and 2013, Staff has recommended that the \$0.0007 per kWh surcharge be utilized throughout both years. At the end of the initial two year period, GCEC will be able to better estimate what the DSM adjustor surcharge should be taking into consideration the actual energy efficiency expenditures and the dollars collected through the DSM adjustor surcharge.

55. Staff understands that even with the above modifications to each program, it is unlikely that GCEC will meet the required EE Standard. Therefore, Staff has recommended that with the 2012-2013 EE Implementation Plan as adjusted by Staff below, GCEC be granted a partial waiver under A.A.C. R14-2-2419 for 2012 and 2013.

GRAHAM COUNTY ELECTRIC COOPERATIVE		
2012-2013 EE PLAN BUDGET (REVISED BY STAFF)		
	2012	2013
New EE/DSM Programs	\$ 88,379	\$ 88,379
Refrigerator/Freezer Appliance Recycling Program	\$ 10,079	\$10,079
Residential CFL Lighting Program	\$ 6,000	\$ 6,000
Residential Customer Home Energy Audit Program	-	-
Residential LIW Program	\$ 41,000	\$ 49,000
Residential Conservation Behavior Program	\$ 31,300	\$ 23,300
Residential TOU Program	-	-
Support Programs (allocated across the programs)	\$ 14,892	\$14,892
Advertising Budget	\$ 6,265	\$ 6,265
Administration Budget	\$ 8,627	\$ 8,627

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Total Operating Cost	\$ 103,271	\$ 103,271
Accumulated Cost	\$ 103,271	\$ 206,542

GRAHAM COUNTY ELECTRIC COOPERATIVE PROJECTED SAVINGS (REVISED BY STAFF)			
	2011	2012	2013
Projected Sales (kWh)	162,013,919*	156,012,000	152,484,000
Projected Savings (kWh)	-	1,777,091	1,794,393
Projected Sales less Savings (kWh)	162,013,919	154,234,909	150,689,607
Required Savings from Prior Year Sales			
Required Savings (%)	1.25%	3.00%	5.00%
Cooperative Discount (%)	75%	75%	75%
Required Cooperative Savings (%)	0.94%	2.25%	3.75%
Required Cooperative Savings (kWh)	1,375,654*	3,645,313*	5,850,450
Accumulated Program Savings			
Existing Programs (kWh)			
New Programs (kWh)		1,777,091	1,794,393
Total Projected Savings (kWh)		1,777,091	3,571,483
Savings (%)		1.097%	2.289%
Difference Between Required and Projected Savings (kWh)		(1,868,222)	(2,278,967)

\*2010 and 2011 actual sales were used in the calculation of the Required Cooperative Savings.

56. In addition, because GCEC has no prior experience with implementing energy efficiency programs and due to the timing of the approval of the proposed plan, Staff has

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1 recommended that GCEC should implement its plan for the remainder of 2012 and all of 2013  
2 calendar years. Therefore, GCEC would be required to file its next energy efficiency plan no later  
3 than June 1, 2013 pursuant to A.A.C. R14-2-2418(B). Also, Staff has recommended that GCEC's  
4 initial filing of a DSM Progress Report in accordance with A.A.C. R14-2-2409 be filed no later  
5 than March 1, 2013 and that for subsequent filings, GCEC comply with all of the filing dates  
6 specified in the EE Standards.

7 57. Staff further recommended that given that this is the first time GCEC has  
8 implemented energy efficiency programs within its service territory and the interest in these  
9 programs cannot be proven or negated at this point in time, GCEC be granted approval to shift  
10 funds between the approved energy efficiency programs when it is cost-effective to do so and  
11 allows for GCEC to stay within the overall established energy efficiency budget.

12 58. Staff also recommended that GCEC revise Appendix 1, the Demand Side  
13 Management Adjustment — Schedule A-DSM Tariff, from its initial filing so that the tariff is  
14 consistent with the terms of the Commission's Decision. This tariff should be submitted to Docket  
15 Control within 15 days of the effective date of this Decision.

16 59. In addition, Staff has recommended that GCEC provide notice to its customers of  
17 the new DSM adjustor surcharge within 15 days of the effective date of this Decision in a form  
18 acceptable to Staff.

#### 19 CONCLUSIONS OF LAW

20 1. Graham County Electric Cooperative, Inc. is an Arizona public service corporation  
21 within the meaning of Article XV, Section 2, of the Arizona Constitution.

22 2. The Commission has jurisdiction over Graham County Electric Cooperative, Inc.  
23 and over the subject matter of the Application.

24 3. The Commission, having reviewed the application and Staff's Memorandum dated  
25 June 29, 2012, concludes that it is in the public interest to approve Graham County Electric  
26 Cooperative Inc.'s proposed 2012-2013 Energy Efficiency Implementation Plan with the  
27 modifications described herein.

28 ...

ORDER

IT IS THEREFORE ORDERED that Graham County Electric Cooperative Inc.'s proposed 2012-2013 Energy Efficiency Implementation Plan be adopted as modified by this Decision.

IT IS FURTHER ORDERED that the proposed Refrigerator/Freezer Appliance Recycling Program as modified by this Decision is approved.

IT IS FURTHER ORDERED that the Residential Compact Fluorescent Lamps Lighting Program as modified by this Decision is approved.

IT IS FURTHER ORDERED that the Residential Low Income Weatherization Program as modified by this Decision is approved.

IT IS FURTHER ORDERED that the Customer Energy Efficiency Education Program as modified by this Decision is approved.

IT IS FURTHER ORDERED that the Graham County Electric Cooperative Inc.'s Residential Home Energy Audit Program is not approved.

IT IS FURTHER ORDERED that the total budget of \$20,000 that was originally allocated to the Residential Home Energy Audit Program now be allocated to the Refrigerator/Freezer Appliance Recycling Program, the Residential Compact Fluorescent Lamps Lighting Program, the Residential Low Income Weatherization Program, and the Customer Energy Efficiency Education Program all as modified by this Decision.

IT IS FURTHER ORDERED that Graham County Electric Cooperative Inc. is hereby granted a waiver of the Energy Efficiency Standard requirement in A.A.C. R14-2-2404 for 2012 and 2013.

IT IS FURTHER ORDERED that Graham County Electric Cooperative Inc. file its next Energy Efficiency Implementation Plan no later than June 1, 2013 for the 2014-2015 calendar years pursuant to A.A.C. R14-2-2418(B).

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IT IS FURTHER ORDERED that Graham County Electric Cooperative Inc. file with Docket Control, as a compliance matter in this case, a tariff consistent with the terms of the Commission's Decision within 15 days of the effective date of this Decision.

IT IS FURTHER ORDERED that Graham County Electric Cooperative Inc. provide notice to its customers of the new DSM adjustor surcharge within 15 days of the effective date of this Decision in a form acceptable to Staff.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

**BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

CHAIRMAN

COMMISSIONER

COMMISSIONER

COMMISSIONER

COMMISSIONER

IN WITNESS WHEREOF, I, ERNEST G. JOHNSON, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

ERNEST G. JOHNSON  
EXECUTIVE DIRECTOR

DISSENT: \_\_\_\_\_

DISSENT: \_\_\_\_\_

SMO:RSP:sms/SH

1 SERVICE LIST FOR: GRAHAM COUNTY ELECTRIC COOPERATIVE, INC.  
2 DOCKET NO.: E-01749A-11-0235

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